

ABSTRACT

A nut 4 is provided inside a casing 3 through which a drive shaft 2 having a thread groove 2a is inserted. The nut 4 is meshed with the drive shaft 2. The nut 4 is provided with an internal gear 25 which surrounds the drive shaft 2. A spur gear 36 is fixed to an 5 eccentric part 37 of an output shaft 27 of a motor 5. The spur gear 36 and the internal gear 25 are meshed with each other to form a speed reduction mechanism 6. An electromagnetic clutch 7 is fixed to the output shaft 27. The electromagnetic clutch 7 switches the operation between two operation modes. In the first mode, the output shaft 27 is connected to the nut 4 such that the nut 4 rotates at a speed equal to the rotation 10 speed of the output shaft 27. In the second mode, the output shaft 27 is disconnected from the nut 4 such that the nut 4 is rotated while the rotation speed of the output shaft 27 is reduced by the speed reduction mechanism 6.